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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/973,070	10/10/2001	Eric Martinez	8053.015.00	4677
30827	7590	10/15/2003		
MCKENNA LONG & ALDRIDGE LLP 1900 K STREET, NW WASHINGTON, DC 20006				
EXAMINER LAVARIAS, ARNEL C				
ART UNIT		PAPER NUMBER		
2872				

DATE MAILED: 10/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/973,070

Applicant(s)

MARTINEZ ET AL.

Examiner

Arnel C. Lavarias

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-14, 19-22, 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Beals et al. (U.S. Patent Application Publication US2002/0040731 A1), of record.

Beals et al. discloses an apparatus and method for supplying network services over fiber optic cable to a particular building and a method for pulling fiber through gas service pipes (See entire document, and in particular Figures 2-3, 5-7, 20-21), the apparatus comprising a service pipe (See 10 in Figure 3; Abstract; 506 in Figure 20) that conveys gas between a gas main (See for example 502 in Figure 20) and a gas meter (See for example 510 in Figure 20) for the particular building; a flexible tubing disposed inside the service pipe (See 8 in Figure 3; paragraph 0061-0072), the tube sealed at each end to an outside surface of the service pipe at a pressure fitting for providing access to an inside of the tube (See 50, 114 in Figure 3); and a fiber optic cable disposed inside the

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flexible tube (See 8 in Figure 3; paragraph 0045, 0072), with each end outside of the service pipe. Beals et al. additionally discloses the flexible tube and the pressure fitting not leaking at an operating gauge pressure for gas between the tube and an inside of the service pipe (See paragraph 0016, 0048-0072, 0108-0110). Beals et al. also discloses a first pressure fitting, at one end of the flexible tube, being at a first location convenient for connecting the fiber optic cable to the building, and a second pressure fitting, at a different end of the flexible tube, being at a second location convenient for connecting the fiber optic cable to a network cable (See Figure 20). Beals et al. also discloses the diameter of the service pipe being less than about six inches (See paragraph 0053).

Further, Beals et al. discloses a method for pulling fiber optic cables through gas service pipes (See entire document, and in particular Figures 2-3, 5-7, 20-21, and paragraph 0048-0120), the method including stopping gas flow from a gas main to a service pipe that conveys gas between the gas main and a gas meter for a particular building (See entire document, and in particular Figures 2-3, 5-7, 20-21, and paragraph 0048-0120); joining to the service pipe, at a first location convenient for connecting fiber optic cable to the particular building, a first nipple that provides for a flexible tube a pass way between an inside of the service pipe and an outside of the service pipe (See entire document, and in particular Figures 2-3, 5-7, 20-21, and paragraph 0048-0120); joining to the service pipe, at a second location convenient for connecting fiber optic cable to a network cable, a second nipple that provides for the flexible tube a pass way between the inside of the service pipe and the outside of the service pipe (See entire document, and in particular Figures 2-3, 5-7, 20-21, and paragraph 0048-0120); feeding the flexible tube

through a catch nipple of the first nipple and the second nipple after passing the flexible tube through a different nipple of the first nipple and the second nipple and through the inside of the service pipe (See entire document, and in particular Figures 2-3, 5-7, 20-21, and paragraph 0048-0120); sealing the flexible tube to the first nipple and the second nipple for pressures up to a predetermined maximum pressure (See entire document, and in particular Figures 2-3, 5-7, 20-21, and paragraph 0048-0120); and feeding a fiber optic cable through the flexible tube (See entire document, and in particular Figures 2-3, 5-7, 20-21, and paragraph 0048-0120). Additionally, Beals et al. discloses cutting an opening into the service pipe, the opening sufficient for reaching the flexible tube inside the service pipe and manipulating the flexible tube into the catch nipple (See Figure 3; paragraph 0006-0018; 0048-0072); evacuating gas from the service pipe, restoring the gas flow into the service pipe after sealing the flexible tube, and sealing to the service pipe a component, such as a catch nipple (See for example 30 or 100 in Figure 3), that covers the opening for pressures up to a predetermined maximum pressure (See paragraph 0006-0018, 0048-0072, 0111-0119); the component that covers the opening including a fitting and two couples (See 202 and couples surrounding hot-tap gate valve below 104 in Figure 7); either of the nipples being the catch nipple (See 30, 100 in Figure 3); joining the first or second nipple is performed after cutting the opening and feeding the flexible tube through the catch nipple (See paragraph 0048-0072); joining the first or second nipple further comprises covering the opening with a component including the catch nipple (See 30, 50, 100, 114 in Figure 3); and sealing the component to the service

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pipe for pressures up to the predetermined maximum pressure (See paragraph 0048-0072).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Potash (U.S. Patent Application Publication US2002/0114595 A1), of record, in view of Di Giovanni et al. (U.S. Patent No. 4427112).

Potash discloses an apparatus for supplying network services over fiber optic cable to a particular building (See for example Figure 1a, 1b, 1c), the apparatus comprising a service pipe that conveys gas (See 10 in Figure 1a, 1b, 1c; Paragraph 0014); a flexible tubing disposed inside the service pipe (See 24 in Figure 1a, 1b, 1c), the tube sealed at each end to an outside surface of the service pipe at a pressure fitting for providing access to an inside of the tube (See 20, 22 in Figure 1a, 1b, 1c); and a fiber optic cable disposed inside the flexible tube (See 26 in Figure 1a, 1b, 1c). Potash additionally discloses the flexible tube and the pressure fitting not leaking at an operating gauge pressure for gas between the tube and an inside of the service pipe (See paragraph 0014-0016, 0032). Potash also discloses a first pressure fitting, at one end of the flexible tube, being at a first location convenient for connecting the fiber optic cable to the building, and a second

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pressure fitting, at a different end of the flexible tube, being at a second location convenient for connecting the fiber optic cable to a network cable (See Figures 1a, 1b, 1c; See 74, 58, 72, 50 of Figure 2). Potash lacks the service pipe conveying gas between a gas main and a gas meter for a particular building. It is extremely well-known to have a service pipe convey gas between a gas main and a gas meter. For example, Di Giovanni et al. teaches a typical or conventional gas distribution network (See for example Figure 1; col. 6, line 28-col. 7, line 9) with a service line connection (See for example 25 in Figure 1) that conveys gas from a gas main (See for example 20 in Figure 1), through a gas meter (See for example col. 6, lines 28-51), and to a building (See for example 26, 27, 28 in Figure 1). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the service pipe of Potash convey gas between a gas main and a gas meter for a particular building, as taught by Di Giovanni et al., for the purpose of providing gas service to commercial and residential customers, as well as determine the amount of gas usage from these customers.

6. Claims 15-17, 23-24, 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beals et al.

With regard to Claim 15, Beals et al. disclose the invention as set forth above in Claims 1 and 6. Beals et al. is silent regarding the predetermined pressure being in the range from about 75 psig to about 100 psig. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the predetermined pressure being in the range from about 75 psig to about 100 psig, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the

optimum or workable ranges involves only routine skill in the art. One would have been motivated to have the predetermined pressure being in the range from about 75 psig to about 100 psig for the purpose of reducing the risk of rupturing the gas service pipe or collapsing the flexible tube. *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235.

With regard to Claims 16-17, Beals et al. discloses the invention as set forth in Claims 1 and 6, except for feeding or replacing a fiber optic cable passing through the flexible tube after the step of restoring the gas flow. It would have been obvious to one having ordinary skill in the art at the time the invention was made to feed or replace a fiber optic cable passing through the flexible tube after the step of restoring the gas flow, since one skilled in the art would have realized that the interior of the flexible tube is isolated from the gas flow from the interior of the service pipe, and installing or replacing an existing fiber optic cable in the flexible tube may be performed whether the gas flow in the service pipe is on or off. One would have been motivated to do this to reduce the installation time required for the fiber optic cable.

With regard to Claims 23-24, Beals et al. discloses the invention as set forth above in Claim 1 and 6, except for accessing the first or second location without cutting into a roadway that is used for the passage of motor vehicles. It would have been obvious to one having ordinary skill in the art at the time the invention was made to access the first or second location without cutting into a roadway that is used for the passage of motor vehicles, since one skilled in the art would choose the first and second locations on the service pipe based on ease of accessibility, cost, closeness of each location to the intended service/customer, and other such variables. One would have been motivated to

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access the first or second location without cutting into a roadway that is used for the passage of motor vehicles to reduce cost and reduce the impact of fiber optic cable installation on the general public/populace at the two locations.

With respect to Claims 26-27, Beals et al. discloses the invention as set forth above in Claims 1, 6, and 25, except for obtaining rights for sealing the flexible tube in the service pipe and charging users of the equipment in the building for transferring data over the fiber optic cable. It would have been obvious to one having ordinary skill in the art at the time the invention was made to obtain rights for sealing the flexible tube in the service pipe and charge users of the equipment in the building for transferring data over the fiber optic cable since one skilled in the art would recognize the general requirement of obtaining rights from the owner of property prior to performing any action on the property, as well as recognize that income from operating a fiber optic communication link is generally based on charging customers based on access and usage of the link. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to obtain rights for sealing the flexible tube in the service pipe and charge users of the equipment in the building for transferring data over the fiber optic cable. One would have been motivated to do this to avoid costly delays in fiber optic cable installations, as well as generate income so that general maintenance and future improvements to the network services can be performed.

7. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beals et al. in view of Klamm et al. (U.S. Patent No. 4756510), of record.

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Beals et al. discloses the invention as set forth above in Claim 6 above, except for the step of cutting further comprising removing a longitudinal portion of the service pipe. However, Klamm et al. teaches installing fiber optic cables in fluid transmission pipelines wherein the pipeline is cut longitudinally to gain access to the interior of the pipeline for retrieving and placing objects such as tubes. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the step of cutting further comprising removing a longitudinal portion of the service pipe, as taught by Klamm et al. in the method for pulling fiber optic cables through gas service pipelines as disclosed by Beal et al. One would have been motivated to do this to provide full and unobstructed access to the interior of the pipeline.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Statutory Invention Registration H704 to Di Vita et al., of record.

Di Vita et al. is being cited to evidence the general concept of providing an optical fiber through a pipeline carrying fluid, such as water, oil, and gas.

BE 881391 to Zelniczek, of record.

Zelnizec is being cited to evidence the general concept of routing optical fibers in pipelines, such as water or gas pipelines, to avoid major excavation and construction. *A translation of this document has been included with this Office Action.*

U.S. Patent No. 4729106 to Rush et al.

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Rush et al is being cited to evidence a typical fluid distribution system for carrying gas between a gas main and a gas meter (See for example Figures 1, 3). The distribution system further includes information carrying means, such as wires or optical fibers (See Figures 4, 5, 6; col. 4, lines 18-66), embedded in or on the walls of the pipe. However, the fluid distribution lacks a flexible tube disposed inside the service, the tube sealed at each end to an outside surface of the service pipe at a pressure fitting for providing access to an inside of the tube, the fiber optic cable being disposed inside the flexible tube.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arnel C. Lavarias whose telephone number is 703-305-4007. The examiner can normally be reached on M-F 8:30 AM - 5 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on 703-305-0024. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1782.



Arnel C. Lavarias
9/30/03


DREW DUNN
SUPERVISORY PATENT EXAMINER